

Appellant's Brief on Appeal  
S/N: 09/850,383

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:

Brenda Dietrich

**Serial No.: 09/850,383**

Group Art Unit: 3628

Filed: May 7, 2001

Examiner: Chencinski, Siegfried E.

For: **AUCTIONS FOR MULTIPLE ITEMS WITH CONSTRAINTS SPECIFIED  
BY THE BIDDERS**

Commissioner of Patents  
Alexandria, VA 22313-1450

**APPELLANT'S REPLY BRIEF**

Sir:

In response to the Examiner's Answer dated September 22, 2006 and the  
Examiner's Answer dated October 20, 2006 (which does not reference the September 22nd  
Answer but is substantially the same as the September 22nd Answer), and the Examiner's  
Answer dated April 23, 2007 (which does not reference the September 22nd Answer or the  
October 20, 2006 Answer but is substantially the same as the September 22nd Answer and  
the October 20, 2006 Answer), Appellant states as follows:

## **REMARKS**

First, Appellant does not understand the necessity of the latest Examiner's Answer which is dated April 23, 2007. Indeed, it is substantially the same as the previous Examiner's Answer and substantially similar to the first Examiner's Answer. Applicant notes that the only difference between the April 23rd and October 20, 2006 Examiner's Answer is that in the April 23rd Examiner's Answer, the Examiner is listed as one of the three conferees signing the Examiner's Answer, whereas in the October 20, 2006 Examiner's Answer, there are only two conferees listed.

If there is any difference between this latest Examiner's Answer and the previous Examiner's Answer (or between any future Examiner's Answer and this Examiner's Answer) Appellant would respectfully request that the Examiner point out the difference to the Appellant.

Moreover, Appellant would point out that in an Office Communication dated November 30, 2007, the Examiner indicated that "[s]ince no further response by Appellant is deemed necessary, the application has been forwarded to the Board of Appeals and Interferences for decision on the Appeal".

Therefore, Appellant respectfully submits that the Examiner's Answer dated April 23, 2007 is duplicate and unnecessary and should be stricken from the record.

Alternatively, in the event that the April 23, 2007 Examiner's Answer is entered into the Record, Appellant submits this Reply Brief in response thereto. Appellant notes that since the April 23, 2007 Examiner's Answer is substantially the same as the previous Examiner's Answer, this Reply Brief is substantially the same as Appellant's previous Reply Brief.

### Claim 1

Appellant would again point out that **the Examiner is construing the term "constraint" in a manner which is 1) contrary to its commonly accepted meaning in**

**the art, and 2) certainly contrary to the meaning of the term as used in the Specification.**

The Examiner alleges that he has "been unable to find a special definition of the term "constraint" in Appellant's specification", and therefore, the Examiner feels free to construe the term "constraint" to include the simple "bidding rule" disclosed in Ausubel. However, as Appellant pointed out in his brief, the Examiner conveniently ignores one important statement in the Application:

"[t]his invention is not concerned with the particular bidding rules of the auction, only with the methods and systems used to select the winning bids" (Application at page 15, lines 6-7; emphasis added).

Based on this statement alone it is unreasonable to equate the "constraint" in the claimed invention with the "bidding rules" of Ausubel.

Moreover, the Specification is replete with examples of the "constraint" contemplated by the claimed invention. For example, the specification describes a budget constraint (Application at page 9, line 4), maximum quantity constraint (Application at page 9, line 8), minimum quantity constraint (Application at page 9, line 14), and so forth, and states that these constraints may be included in an integer program which may be solved to determine the set of winning bids (Application at page 10, line 16-page 11, line 11).

Appellant submits that these examples of a constraint would clearly indicate that the term constraint may be construed to mean "a restriction of the feasible solutions in an optimization problem", which is the common meaning of the term in the field of mathematics. Clearly, the "bidding rules" of Ausubel are completely different from these examples of "constraints" in the Application, and thus, clearly the "bidding rules" are different from the "constraints" in the claimed invention.

Further, the Examiner on pages 13-15 attempts to provide examples of Ausubel's use of the expression "constraint". However, the only instance of "constraint" in these "examples" is at col. 34, lines 34-54 in Ausubel which states "... without our previous constraint that **only one bid per user is accepted...**" (emphasis added). Thus, the only use

of the term "constraint" in the "examples" give by the Examiner, refers to **a simple bidding rule of the auction** and not a "constraint specified by a participant in the auction" as in the claimed invention.

Further, the Examiner responds to Appellant's use of wikipedia.org to help indicate a common use of the term "constraint" in the field of mathematics, stating that "Appellant would need to provide a deeper and broader exposition from the art of qualitative aids to decision making, perhaps with valid expert testimony....". However, Appellant would point out that the wikipedia.org definition of constraint (i.e., "a restriction of the feasible solutions in an optimization problem") helps to clarify the inventor's use of the term in the "constraint" in the Application.

Moreover, it is telling that **the Examiner has not made reference to any authority to support his baseless allegation** that Appellant's proposed construction of the term "constraint" is "artificial, unreasonable and unacceptable" (Answer at page 15). The Examiner simply expects Appellant to "take his word for it."

Appellant submits that unless the Examiner can provide some authority to support his allegation, the term "constraint" should be construed based on the description in the Application including the examples of "constraints" (e.g., on page 9 of the Application) and the example of how constraints are used in an integer program which may be solved to determine the set of winning bids (Application at page 10, line 16-page 11, line 11).

Nowhere are such constraints disclosed by Ausubel

### Claim 13

With respect to claim 13, Appellant would again point out that Ausubel does not teach or suggest "*generating a proposal, based on the constraints specified by the participant, using a column generation formulation*". Indeed, the Examiner **surprisingly attempts to support his position that Ausubel suggest a column generation formulation by stating simply that** "Fig. 3D displays bid data in a column".

Again, Appellant would point out that **in the field of mathematics**, the term "column generation" may be defined as an algorithm for solving linear programs (e.g., large linear programs) in which only the variables which have the potential to improve the objective function--that is, to find variables with negative reduced cost (assuming without loss of generality that the problem is a minimization problem) may be generated.

Thus, **the Examiner's analysis is superficial and overly simplistic**. In fact, nowhere in Figure 3D, or anywhere else, does Ausubel teach or suggest an algorithm for solving linear programs (e.g., large linear programs).

#### Claim 14

With respect to claim 14, Appellant would again point out that nowhere do the cited references teach or suggest a computer implemented method for facilitating an auction including **formulating a winner determination problem**, with constraints specified by the participant, **as an integer problem** (lines 9-10 of page 8).

#### Claims 3-5

**With respect to dependent claims 3-5, Appellant would point out that the Examiner simply reiterated his rejection of these claims from the final Office Action, and ignored Appellants arguments with respect to these claims.**

Indeed, as pointed out by Appellant in his Appeal Brief, nowhere does McAfee teach or suggest suggest "*wherein the constraints characterize combinations of bids from the participant for the desired items within the auction system*" (as recited in claim 3), or "*enabling the auction system so that it is responsive to a budget constraint*" (as recited in claim 4), or "*wherein the budget constraint is specified by the participant*" (as recited in claim 5).

Indeed, in an SAA, as disclosed in McAfee, the additional "restrictions" are placed by the auctioning organization or seller and apply uniformly to all bidders. **Thus, McAfee does not teach or suggest receiving at least one constraint (e.g., a restriction of the feasible solutions in an optimization problem)** specified by a participant in the auction,

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wherein the constraint characterizes combinations of items desired by the participant within the auction system. **Thus, McAfee certainly does not teach or suggest** determining a winner in the auction, based on the constraint **specified by the participant.**

### **VIII . CONCLUSION**

In view of the foregoing, Appellant respectfully submits that claims 1-19, all the claims presently pending in the application, are clearly patentably distinct from the prior art of record and in condition for allowance. Thus, the Board is respectfully requested to remove all rejections of claims 1-19.

Please charge any deficiencies and/or credit any overpayments necessary to enter this paper to Assignee's Deposit Account number 50-0510.

Respectfully Submitted,

Date: June 25, 2007

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